

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re the patent application of Maier et al.

National Phase of PCT/CH99/00289

U.S. Serial No. [not yet assigned]

Filing date: December 27, 2001

Title: Solid Glucosamine Sulphate

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Commissioner for Patents  
Washington, D.C. 20231

**AMENDMENT**

Sir:

Please amend this application by deleting claims 1 - 14 and adding the new claims attached. Calculate the filing fee on the basis of the new claims (no multiple dependency).

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Charles W. Fallow  
Reg. No. 28,946

Shoemaker and Mattare, Ltd.  
2001 Jefferson Davis Highway  
Arlington, Virginia 22202

(703) 415-0810

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U.S. National Phase of PCT/CH99/00289 -- new claims added December 26, 2001

15. A solid formulation of glucosamine sulphate or a mixed salt thereof, in an effervescent preparation.

16. A formulation according to claim 15, wherein the formulation comprises 500-2000 mg glucosamine sulphate or a mixed salt thereof in a single dose.

17. A formulation according to claim 15, wherein the formulation comprises 750-1500 mg glucosamine sulphate or a mixed salt thereof in a single dose.

18. A formulation according to claim 15, further comprising a fruit acid for improving storage stability.

19. A formulation according to claim 18, wherein the weight ratio of the glucosamine sulphate or a mixed salt thereof to said fruit acid is from 0.2:1 to 5:1

20. A formulation according to claim 18, wherein the weight ratio of the glucosamine sulphate or a mixed salt thereof to said fruit acid is from 0.2:1 to 2:1

21. A formulation according to claim 18, wherein the weight ratio of the glucosamine sulphate or a mixed salt thereof to said fruit acid is from 0.5:1 to 1:1.

22. A formulation according to claim 18, wherein said fruit acid is hydroxylated.

23. A formulation according to claim 18, wherein said fruit acid is an aliphatic carboxylic organic acid

24. A formulation according to claim 18, wherein said fruit acid is selected from the group consisting of citric, tartaric, glutaric, lactic, malic and gluconic acids, and

mixtures thereof.

25. A formulation according to claim 18, wherein said fruit acid has at least two carboxylic groups.

26. A formulation according to claim 18, wherein said fruit acid is citric acid.

27. A formulation according to claim 18, wherein said fruit acid is crystalline citric acid.

28. A formulation according to claim 18, wherein said fruit acid is anhydrous.

29. A formulation according to claim 15, wherein the mixed salt is a glucosamine sulphate hydrochloride.

30. A formulation according to claim 15, wherein the mixed salt is a glucosamine sulphate potassium chloride.

31. A formulation according to claim 15, further comprising an anti-oxidant.

32. A formulation according to claim 15, produced by a method comprising steps of spraying a mixture of glucosamine sulphate or a mixed salt thereof and a fruit acid with water in a spray dryer, and then drying the formulation to a water content of at most 1.5% by weight.

33. A formulation according to claim 32, wherein said water content is at most 0.5% by weight.

34. A formulation according to claim 32, wherein said fruit acid is citric acid.